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B1

7 determining a maximum frequency which provides power not greater
8 than the allowable power consumption level,
9 determining a minimum voltage which allows operation at the maximum
10 frequency determined, and
11 dynamically changing the operating condition of the processor by
12 changing one of the frequencies generated by the clock generator and the
13 voltage to the maximum frequency and minimum voltage determined.

Sub
D1

Claim 2 (amended).

A) computing device comprising:

2 a power supply furnishing selectable output voltages,
3 a clock frequency source,
4 a central processor including:
5 a processing unit for providing values indicative of operating
6 conditions of the central processor, and
7 a clock frequency generator receiving a clock frequency from the
8 clock frequency source and providing a one of a plurality of
9 selectable output clock frequencies to the processing unit; and
10 means for detecting the values indicative of operating conditions of the
11 central processor and causing the power supply and clock frequency
12 generator to furnish an output clock frequency and voltage level for the
13 central processor and to generate concurrently frequencies which are
14 selected for optimum operation of a plurality of functional units of the
15 computing device.

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SWR
9/21
1 Claim 6 (twice amended).

A method for controlling the power used

by a computer comprising the steps of:

3 utilizing control software to measure the operating characteristics of a
4 central processor of the computer,

5 determining when the operating characteristics of the central processor
6 are significantly different than required by the operations being
7 conducted, and

8 changing the operating characteristics of the central processor to a level
9 commensurate with the operations being conducted in which:

10 the step of determining when the operating characteristics of the central
11 processor are significantly different than required by the operations being
12 conducted comprising utilizing the control software to determine
13 desirable voltages and frequencies for the operation of the central
14 processor based on the measured operating characteristics, and

15 the step of changing the operating characteristics of the central
16 processor to a level commensurate with the operations being conducted
17 comprises providing signals:

18 for controlling voltages furnished by a programmable power supply
19 to the central processor,

20 for controlling frequencies furnished by the central processor to
21 the central processor, and

22 providing signals for controlling frequencies furnished by the
23 central processor to other functional units of the computer.

B3 Sub 1
1 Claim 8 (amended).

A computer comprising:

2 a power supply furnishing selectable output voltages,

3 a clock frequency source,

4 a bus,

5 system memory,

6 a central processor including:

7 a processing unit for providing values indicative of operating
8 conditions of the central processor, and

9 a clock frequency generator receiving a clock frequency from the
10 clock frequency source and providing a plurality of selectable
11 output clock frequencies to the processing unit; and

12 means for detecting the values indicative of operating conditions of the
13 central processor and causing the power supply and clock frequency
14 generator to furnish an output clock frequency and voltage level for the
15 central processor and to generate concurrently frequencies which are
16 selected for optimum operation of a plurality of functional units of the
17 computing device including system memory.

B4 Sub 2
1 Claim 10 (amended).

A computing device as claimed in Claim 8 in

2 which the means for detecting the values indicative of operating

3 conditions of the central processor causes the clock frequency generator

4 to generate frequencies which are selected for optimum operation of

5 system memory.

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1 Claim 11 (amended). A computing device as claimed in Claim 8 in
2 which the means for detecting the values indicative of operating
3 conditions of the central processor causes the clock frequency generator
4 to generate frequencies which are selected for optimum operation of the
5 bus.
